

Putnam VT Emerging Markets Equity Fund

The fund's portfolio

3/31/22 (Unaudited)

COMMON STOCKS (93.4%)(a)

	Shares	Value
Airlines (1.0%)		
Copa Holdings SA Class A (Panama)(NON)(S)	3,345	\$279,776
		279,776
Banks (13.1%)		
Bank Central Asia Tbk PT (Indonesia)	1,537,200	851,669
China Merchants Bank Co., Ltd. Class H (China)	128,500	1,004,532
ICICI Bank, Ltd. (India)	114,311	1,095,689
KB Financial Group, Inc. (South Korea)	13,630	685,213
		3,637,103
Capital markets (0.9%)		
Hong Kong Exchanges and Clearing, Ltd. (Hong Kong)	5,500	259,198
		259,198
Chemicals (1.9%)		
Asian Paints, Ltd. (India)	6,207	250,753
Fertiglobe PLC (United Arab Emirates)(NON)	213,092	290,231
		540,984
Electrical equipment (0.9%)		
Contemporary Amperex Technology Co., Ltd. Class A (China)	3,000	240,372
		240,372
Electronic equipment, instruments, and components (0.6%)		
Sinbon Electronics Co., Ltd. (Taiwan)	20,000	180,588
		180,588
Entertainment (0.3%)		
Pearl Abyss Corp. (South Korea)(NON)	1,078	87,791
		87,791
Food and staples retail (6.0%)		
Dino Polska SA (Poland)(NON)	3,815	304,804
Shoprite Holdings, Ltd. (South Africa)	19,160	309,190

WalMart de Mexico (Walmex) SAB de CV (Mexico)	255,162	1,045,664
		1,659,658
Food products (1.8%)		
China Mengniu Dairy Co., Ltd. (China)	94,000	504,760
		504,760
Health-care equipment and supplies (0.7%)		
Shenzhen Mindray Bio-Medical Electronics Co., Ltd. Class A (China)	4,300	207,600
		207,600
Health-care providers and services (3.2%)		
Apollo Hospitals Enterprise, Ltd. (India)	10,191	603,554
Max Healthcare Institute, Ltd. (India) ^(NON)	61,407	280,982
		884,536
Household durables (0.5%)		
Dixon Technologies (India), Ltd. (India)	2,546	143,939
		143,939
Insurance (2.4%)		
AIA Group, Ltd. (Hong Kong)	65,000	680,513
		680,513
Interactive media and services (7.3%)		
NAVER Corp. (South Korea)	2,273	635,584
Tencent Holdings, Ltd. (China)	29,600	1,396,391
		2,031,975
Internet and direct marketing retail (7.3%)		
Alibaba Group Holding, Ltd. (China) ^(NON)	67,316	921,373
Alibaba Group Holding, Ltd. ADR (China) ^(NON)	4,073	443,142
JD.com, Inc. Class A (China) ^(NON)	6,002	175,786
JD.com, Inc. ADR (China) ^(NON)	2,803	162,210
MercadoLibre, Inc. (Argentina) ^(NON)	282	335,433
		2,037,944
IT Services (5.0%)		
Globant SA (Argentina) ^(NON)	693	181,615
PagSeguro Digital, Ltd. Class A (Brazil) ^(NON)	12,284	246,294
Tata Consultancy Services, Ltd. (India)	19,395	953,841
		1,381,750
Machinery (2.3%)		

Shenzhen Inovance Technology Co., Ltd. Class A (China)	24,150	216,161
Techtronic Industries Co., Ltd. (TTI) (Hong Kong)	27,000	434,964
		651,125
Metals and mining (3.4%)		
Anglo American PLC (United Kingdom)	9,217	484,730
Hindalco Industries, Ltd. (India)	26,024	193,974
Sibanye Stillwater, Ltd. (South Africa)	29,517	119,894
Vale Indonesia Tbk PT (Indonesia)	349,500	162,911
		961,509
Oil, gas, and consumable fuels (5.0%)		
Petroleo Brasileiro SA (Preference) (Brazil)	26,700	187,588
PTT Exploration & Production PCL (Thailand)	41,300	178,863
Reliance Industries, Ltd. (India)	29,566	1,023,341
		1,389,792
Professional services (0.8%)		
Centre Testing International Group Co., Ltd. Class A (China)	68,400	211,322
		211,322
Real estate management and development (0.3%)		
Country Garden Services Holdings Co, Ltd. (China)	22,000	93,484
		93,484
Semiconductors and semiconductor equipment (15.9%)		
Advanced Micro Devices, Inc. <i>(NON)</i>	2,880	314,899
Applied Materials, Inc.	2,203	290,355
ASML Holding NV (Netherlands)	564	376,188
ASPEED Technology, Inc. (Taiwan)	2,000	225,576
MediaTek, Inc. (Taiwan)	14,000	436,504
Parade Technologies, Ltd. (Taiwan)	5,000	312,532
Taiwan Semiconductor Manufacturing Co., Ltd. (Taiwan)	120,000	2,480,931
		4,436,985
Software (2.5%)		
Totvs SA (Brazil)	90,545	691,870
		691,870
Technology hardware, storage, and peripherals (6.2%)		
Samsung Electronics Co., Ltd. (South Korea)	30,027	1,715,372
		1,715,372
Textiles, apparel, and luxury goods (1.5%)		
Li Ning Co., Ltd. (China)	29,000	248,558

LVMH Moet Hennessy Louis Vuitton SA (France)	239	170,185
		418,743
Transportation infrastructure (1.1%)		
International Container Terminal Services, Inc. (Philippines)	69,710	301,747
		301,747
Wireless telecommunication services (1.5%)		
MTN Group, Ltd. (South Africa) ^(NON)	31,434	407,301
		407,301
Total common stocks (cost \$22,033,172)		\$26,037,737

INVESTMENT COMPANIES (1.4%)^(a)

	Shares	Value
iShares Core MSCI Emerging Markets ETF	7,217	\$400,904
Total investment companies (cost \$404,817)		\$400,904

SHORT-TERM INVESTMENTS (5.1%)^(a)

		Principal amount/shares	Value
Interest in \$384,728,000 joint tri-party repurchase agreement dated 3/31/2022 with BofA Securities, Inc. due 4/1/2022 - maturity value of \$1,166,010 for an effective yield of 0.300% (collateralized by Agency Mortgage-Backed Securities with coupon rates ranging from 2.000% to 4.500% and due dates ranging from 2/1/2042 to 3/1/2052, valued at \$392,422,560)		\$1,166,000	\$1,166,000
Putnam Cash Collateral Pool, LLC 0.37% ^(AFF)	Shares	246,750	246,750
Total short-term investments (cost \$1,412,750)			\$1,412,750

TOTAL INVESTMENTS

Total investments (cost \$23,850,739)

\$27,851,391

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 3/31/22 (Unaudited)

Swap counterparty/ notional amount	Value	Upfront premium received (paid)	Termination date	Payments received (paid) by fund	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
Bank of America N.A.						
\$469,988	\$477,985	\$—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Alinma Bank — Monthly	\$7,848
149,480	152,024	—	6/23/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Alinma Bank — Monthly	2,496
106,866	108,685	—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Alinma Bank — Monthly	1,785
73,233	74,479	—	6/23/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Alinma Bank — Monthly	1,224
43,343	45,510	—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Leejam Sports Co. JSC — Monthly	2,154
42,927	45,073	—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Leejam Sports Co. JSC — Monthly	2,133
41,455	43,528	—	6/23/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Leejam Sports Co. JSC — Monthly	2,061
33,651	35,333	—	6/20/23	(Secured Overnight	Leejam Sports Co. JSC — Monthly	1,672

18,713	19,648	—	6/20/23	Financing Rate plus 1.00%) — Monthly (Secured Overnight Financing Rate plus 1.00%) — Monthly	Leejam Sports Co. JSC — Monthly	930
14,682	15,416	—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Leejam Sports Co. JSC — Monthly	730
63,093	65,115	—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Mouwasat Medical Services Co. — Monthly	2,003
62,819	64,831	—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Mouwasat Medical Services Co. — Monthly	1,993
45,906	47,377	—	6/23/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Mouwasat Medical Services Co. — Monthly	1,457
27,126	27,995	—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Mouwasat Medical Services Co. — Monthly	861
9,390	9,691	—	6/20/23	(Secured Overnight Financing Rate plus 1.00%) — Monthly	Mouwasat Medical Services Co. — Monthly	298

Upfront premium received	—	Unrealized appreciation	29,645
Upfront premium (paid)	—	Unrealized (depreciation)	—
Total	\$—	Total	\$29,645

Key to holding's abbreviations

ADR American Depositary Receipts: Represents ownership of foreign securities on deposit with a custodian bank.

ETF Exchange Traded Fund

Notes to the fund's portfolio

Unless noted otherwise, the notes to the fund's portfolio are for the close of the fund's reporting period, which ran from January 1, 2022 through March 31, 2022 (the reporting period). Within the following notes to the portfolio, references to "Putnam Management" represent Putnam Investment Management, LLC, the fund's manager, an indirect wholly-owned subsidiary of Putnam Investments, LLC, references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures* and references to "OTC", if any, represent over-the-counter.

(a) Percentages indicated are based on net assets of \$27,885,098.

(NON) This security is non-income-producing.

(AFF) Affiliated company. For investments in Putnam Cash Collateral Pool, LLC, the rate quoted in the security description is the annualized 7-day yield of the fund at the close of the reporting period. Transactions during the period with any company which is under common ownership or control were as follows:

Name of affiliate	Fair value as of 12/31/21	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 3/31/22
Short-term investments					
Putnam Cash Collateral Pool, LLC*#	\$302,400	\$1,686,544	\$1,742,194	\$97	\$246,750
Putnam Short Term Investment Fund**	121,338	—	121,338	16	—
Total Short-term investments	\$423,738	\$1,686,544	\$1,863,532	\$113	\$246,750

* The fund may lend securities, through its agent, to qualified borrowers in order to earn additional income. The loans are collateralized by cash in an amount at least equal to the fair value of the securities loaned. The fair value of securities loaned is determined daily and any additional required collateral is allocated to the fund on the next business day. The remaining maturities of the securities lending transactions are considered overnight and continuous. The risk of borrower default will be borne by the fund's agent; the fund will bear the risk of loss with respect to the investment of the cash collateral. The fund receives cash collateral, which is invested in Putnam Cash Collateral Pool, LLC, a limited liability company managed by an affiliate of Putnam Management. Investments in Putnam Cash Collateral Pool, LLC are valued at its closing net asset value each business day. There are no management fees charged to Putnam Cash Collateral Pool, LLC and there were no realized or unrealized gains or losses during the period.

At the close of the reporting period, the fund received cash collateral of \$246,750 for securities loaned. The rate quoted in the security description is the annualized 7-day yield at the close of the reporting period. At the close of the reporting period, the value of securities loaned amounted to \$250,920.

** Management fees charged to Putnam Short Term Investment Fund have been waived by Putnam Management. There were no realized or unrealized gains or losses during the period.

(S) This security is on loan, in part or in entirety, at the close of the reporting period.

DIVERSIFICATION BY COUNTRY

Distribution of investments by country of risk at the close of the reporting period, excluding collateral received, if any (as a percentage of Portfolio Value):

China	21.0%
India	16.4
Taiwan	13.2

South Korea	11.3
United States	7.9
Hong Kong	5.0
Brazil	4.1
Mexico	3.8
Indonesia	3.7
South Africa	3.0
Argentina	1.9
United Kingdom	1.8
Netherlands	1.4
Poland	1.1
Philippines	1.1
United Arab Emirates	1.1
Panama	1.0
Thailand	0.6
France	0.6
Total	100.0%

Security valuation: Portfolio securities and other investments are valued using policies and procedures adopted by the Board of Trustees. The Trustees have formed a Pricing Committee to oversee the implementation of these procedures and have delegated responsibility for valuing the fund's assets in accordance with these procedures to Putnam Management. Putnam Management has established an internal Valuation Committee that is responsible for making fair value determinations, evaluating the effectiveness of the pricing policies of the fund and reporting to the Pricing Committee.

Investments for which market quotations are readily available are valued at the last reported sales price on their principal exchange, or official closing price for certain markets, and are classified as Level 1 securities under ASC 820. If no sales are reported, as in the case of some securities that are traded OTC, a security is valued at its last reported bid price and is generally categorized as a Level 2 security.

Investments in open-end investment companies (excluding exchange-traded funds), if any, which can be classified as Level 1 or Level 2 securities, are valued based on their net asset value. The net asset value of such investment companies equals the total value of their assets less their liabilities and divided by the number of their outstanding shares.

Many securities markets and exchanges outside the U.S. close prior to the scheduled close of the New York Stock Exchange and therefore the closing prices for securities in such markets or on such exchanges may not fully reflect events that occur after such close but before the scheduled close of the New York Stock Exchange. Accordingly, on certain days, the fund will fair value certain foreign equity securities taking into account multiple factors including movements in the U.S. securities markets, currency valuations and comparisons to the valuation of American Depository Receipts, exchange-traded funds and futures contracts. The foreign equity securities, which would generally be classified as Level 1 securities, will be transferred to Level 2 of the fair value hierarchy when they are valued at fair value. The number of days on which fair value prices will be used will depend on market activity and it is possible that fair value prices will be used by the fund to a significant extent. At the close of the reporting period, fair value pricing was used for certain foreign securities in the portfolio. Securities quoted in foreign currencies, if any, are translated into U.S. dollars at the current exchange rate. Short-term securities with remaining maturities of 60 days or less are valued using an independent pricing service approved by the Trustees, and are classified as Level 2 securities.

To the extent a pricing service or dealer is unable to value a security or provides a valuation that Putnam Management does not believe accurately reflects the security's fair value, the security will be valued at fair value by Putnam Management in accordance with policies and procedures approved by the Trustees. Certain investments, including certain restricted and illiquid securities and derivatives, are also valued at fair value following procedures approved by the Trustees. These valuations consider such factors as significant market or specific security events such as interest rate or credit quality changes, various relationships with other

securities, discount rates, U.S. Treasury, U.S. swap and credit yields, index levels, convexity exposures, recovery rates, sales and other multiples and resale restrictions. These securities are classified as Level 2 or as Level 3 depending on the priority of the significant inputs.

To assess the continuing appropriateness of fair valuations, the Valuation Committee reviews and affirms the reasonableness of such valuations on a regular basis after considering all relevant information that is reasonably available. Such valuations and procedures are reviewed periodically by the Trustees. The fair value of securities is generally determined as the amount that the fund could reasonably expect to realize from an orderly disposition of such securities over a reasonable period of time. By its nature, a fair value price is a good faith estimate of the value of a security in a current sale and does not reflect an actual market price, which may be different by a material amount.

Repurchase agreements: The fund, or any joint trading account, through its custodian, receives delivery of the underlying securities, the fair value of which at the time of purchase is required to be in an amount at least equal to the resale price, including accrued interest. Collateral for certain tri-party repurchase agreements, which totaled \$1,189,320 at the end of the reporting period, is held at the counterparty's custodian in a segregated account for the benefit of the fund and the counterparty. Putnam Management is responsible for determining that the value of these underlying securities is at all times at least equal to the resale price, including accrued interest. In the event of default or bankruptcy by the other party to the agreement, retention of the collateral may be subject to legal proceedings.

Total return swap contracts: The fund entered into OTC and/or centrally cleared total return swap contracts, which are arrangements to exchange a market-linked return for a periodic payment, both based on a notional principal amount, to gain exposure to specific markets or countries.

To the extent that the total return of the security, index or other financial measure underlying the transaction exceeds or falls short of the offsetting interest rate obligation, the fund will receive a payment from or make a payment to the counterparty. OTC and/or centrally cleared total return swap contracts are marked to market daily based upon quotations from an independent pricing service or market maker. Any change is recorded as an unrealized gain or loss on OTC total return swaps. Daily fluctuations in the value of centrally cleared total return swaps are settled through a central clearing agent and are recorded as unrealized gain or loss. Payments received or made are recorded as realized gains or losses. Certain OTC and/or centrally cleared total return swap contracts may include extended effective dates. Payments related to these swap contracts are accrued based on the terms of the contract. The fund could be exposed to credit or market risk due to unfavorable changes in the fluctuation of interest rates or in the price of the underlying security or index, the possibility that there is no liquid market for these agreements or that the counterparty may default on its obligation to perform. The fund's maximum risk of loss from counterparty risk or central clearing risk is the fair value of the contract. This risk may be mitigated for OTC total return swap contracts by having a master netting arrangement between the fund and the counterparty and for centrally cleared total return swap contracts through the daily exchange of variation margin. There is minimal counterparty risk with respect to centrally cleared total return swap contracts due to the clearinghouse guarantee fund and other resources that are available in the event of a clearing member default.

For the fund's average notional amount on total return swap contracts, see the appropriate table at the end of these footnotes.

Master agreements: The fund is a party to ISDA (International Swaps and Derivatives Association, Inc.) Master Agreements (Master Agreements) with certain counterparties that govern OTC derivative and foreign exchange contracts entered into from time to time. The Master Agreements may contain provisions regarding, among other things, the parties' general obligations, representations, agreements, collateral requirements, events of default and early termination. With respect to certain counterparties, in accordance with the terms of the Master Agreements, collateral posted to the fund is held in a segregated account by the fund's custodian and, with respect to those amounts which can be sold or repledged, is presented in the fund's portfolio.

Collateral pledged by the fund is segregated by the fund's custodian and identified in the fund's portfolio. Collateral can be in the form of cash or debt securities issued by the U.S. Government or related agencies or other securities as agreed to by the fund and the applicable counterparty. Collateral requirements are determined based on the fund's net position with each counterparty.

Termination events applicable to the fund may occur upon a decline in the fund's net assets below a specified threshold over a certain period of time. Termination events applicable to counterparties may occur upon a decline in the counterparty's long-term and short-term credit

ratings below a specified level. In each case, upon occurrence, the other party may elect to terminate early and cause settlement of all derivative and foreign exchange contracts outstanding, including the payment of any losses and costs resulting from such early termination, as reasonably determined by the terminating party. Any decision by one or more of the fund's counterparties to elect early termination could impact the fund's future derivative activity.

At the close of the reporting period, the fund did not have a net liability position on open derivative contracts subject to the Master Agreements.

ASC 820 establishes a three-level hierarchy for disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of the fund's investments. The three levels are defined as follows:

Level 1: Valuations based on quoted prices for identical securities in active markets.

Level 2: Valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3: Valuations based on inputs that are unobservable and significant to the fair value measurement.

The following is a summary of the inputs used to value the fund's net assets as of the close of the reporting period:

	Valuation inputs		
Investments in securities:	Level 1	Level 2	Level 3
Common stocks*:			
Communication services	\$—	\$2,527,067	\$—
Consumer discretionary	940,785	1,659,841	—
Consumer staples	1,045,664	1,118,754	—
Energy	366,451	1,023,341	—
Financials	—	4,576,814	—
Health care	—	1,092,136	—
Industrials	279,776	1,404,566	—
Information technology	1,725,033	6,681,532	—
Materials	—	1,502,493	—
Real estate	—	93,484	—
Total common stocks	4,357,709	21,680,028	—
Investment companies	400,904	—	—
Short-term investments	—	1,412,750	—
Totals by level	\$4,758,613	\$23,092,778	\$—

	Valuation inputs		
Other financial instruments:	Level 1	Level 2	Level 3
Total return swap contracts	\$—	\$29,645	\$—
Totals by level	\$—	\$29,645	\$—

* Common stock classifications are presented at the sector level, which may differ from the fund's portfolio presentation.

At the start and close of the reporting period, Level 3 investments in securities represented less than 1% of the fund's net assets and were not considered a significant portion of the fund's portfolio.

The volume of activity for the reporting period for any derivative type that was held at the close of the period is listed below and was based on an average of the holdings of that derivative at the end of each fiscal quarter in the reporting period:

OTC total return swap contracts (notional)	\$900,000
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For additional information regarding the fund please see the fund's most recent annual or semiannual shareholder report filed on the Securities and Exchange Commission's Web site, www.sec.gov, or visit Putnam's Individual Investor Web site at www.putnaminvestments.com